A Framework for Developing a Rapid Assessment Protocol for Southern New England Seasonally Flooded Ponds to Assist Statewide Wetland Monitoring Programs

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Small isolated wetlands that are seasonally flooded provide important hydrological, biological, and ecosystem functions that increasingly are being impacted by human development. In southern New England, seasonally flooded ponds provide specialized breeding habitats for several invertebrate and amphibian species. Protection of these specialized wetlands on state and tribal lands is becoming a priority, particularly in light of widespread concern over declines in amphibian populations. Rapid assessment protocols are needed to document the current status of seasonally flooded ponds and provide baseline information to help gauge the overall effectiveness of federal, state, and tribal protection and restoration actions. We are developing a rapid assessment protocol for southern New England seasonally flooded ponds using a three-tier technical framework for wetland assessment developed by the National Wetland Monitoring and Assessment Work Group. The three-tier approach will include (1) landscape-scale profiles that identify the extent and spatial distribution of seasonally flooded ponds and provide information on adjoining land cover and land use, (2) rapid assessment methods based on the current state of the science in seasonally flooded pond evaluation, and (3) intensive site assessments and studies designed to provide the scientific support needed for verification of the assessment methods. Our effort will involve the partnering of the U.S. Environmental Protection Agency's (U.S EPA) Office of Research and Development (ORD) and regional scientists with academic researchers, federal wetland scientists, and state and tribal wetland managers. This partnership will allow us to utilize ongoing research and also help us to structure our rapid assessment methods to meet the needs of local, federal, state, and tribal monitoring programs. Our rapid assessment methods will help in integrating isolated wetland monitoring into the current water monitoring program activity of southern New England federal agencies, states, and tribes. In addition, rapid assessment results may be useful in trend assessment (i.e., historical and recent losses, encroachment), stressor and disturbance identification at individual sites, and refining site identification for restoration or compensatory mitigation efforts.